

**APR/FY06**

**POHAKULOA TRAINING  
AREA  
Hawaii**

**Army Defense Environmental  
Restoration Program  
Installation Action Plan**

Final 7 July 2006

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The purpose of the Installation Action Plan (IAP) is to outline the total multi-year Cleanup Program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations, necessary remedial actions.

In an effort to coordinate planning information between the restoration manager, US Army Environmental Center (USAEC), Pohakuloa Training Area, Installation Management Agency-Pacific Area Regional Office (IMA-PARO), executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is therefore subject to change.

The following persons contributed to the formulation and completion of this Installation Action Plan during a planning workshop held on 24-27 April 2006:

**Company/Installation/Branch**

USAEC

Booz Allen Hamilton for USAEC

Engineering & Environment, Inc. for USAEC

Engineering & Environment, Inc. for US Army Garrison Hawaii

US Army Garrison Hawaii

ICI for USAEC

DIMCO for US Army Engineer Research and Development Center

State of Hawaii Department of Health, HEER Office

## Acronyms & Abbreviations

<b>AEDB-R</b>	Army Environmental Database – Restoration
<b>bgs</b>	below ground surface
<b>BRAC</b>	Base realignment and Closure
<b>CC</b>	Compliance Related Cleanup
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act (1980)
<b>CTC</b>	Cost-to-Complete
<b>DOD</b>	Department of Defense
<b>EPA</b>	(United States) Environmental Protection Agency
<b>FS</b>	Feasibility Study
<b>FUDS</b>	Formerly Used Defense Sites
<b>FY</b>	Fiscal Year
<b>IAP</b>	Installation Action Plan
<b>IMA-PARO</b>	Installation Management Agency-Pacific Area Regional Office
<b>IRP</b>	Installation Restoration Program
<b>K</b>	\$1,000
<b>LTM</b>	Long-Term Management
<b>LUC</b>	Land Use Controls
<b>MMRP</b>	Military Munitions Response Program
<b>NE</b>	Not Evaluated
<b>NFA</b>	No Further Action
<b>NPL</b>	National Priorities List
<b>OB/OD</b>	Open Burning/Open Detonation
<b>OE</b>	Ordnance and Explosives
<b>PA</b>	Preliminary Assessment
<b>PTA</b>	Pohakuloa Training Area
<b>RA</b>	Remedial Action
<b>RAB</b>	Restoration Advisory Board
<b>RA(C)</b>	Remedial Action – Construction
<b>RAC</b>	Risk Assessment Code
<b>RC</b>	Response Complete
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>RD</b>	Remedial Design
<b>REM</b>	Removal
<b>RI</b>	Remedial Investigation
<b>RRSE</b>	Relative Risk Site Evaluation
<b>SI</b>	Site Inspection
<b>TAPP</b>	Technical Assistance for Public Participation
<b>TRC</b>	Technical Review Committee
<b>USACE</b>	United States Army Corps of Engineers
<b>USAEC</b>	US Army Environmental Center
<b>USARHAW</b>	US Army Hawaii
<b>UXO</b>	Unexploded ordnance

**Installation Locale:** Pohakuloa Training Area (PTA) is located at the intersection of three mountain ranges on the Island of Hawaii: Mauna Kea, Mauna Loa, and the Hualalai Volcanic Mountains. The installation consists of approximately 108,800 acres and is located 32 miles west of Hilo and 27 miles southeast of Waimea. PTA extends approximately 6,800 feet up Mauna Kea and approximately 9,000 feet up Mauna Loa.

**Installation Mission:** PTA is the largest live-fire and maneuver training complex within the U.S. Army Hawaii (USARHAW). The training area consists of 19,148 acres of maneuver training land, 565 acres of live-fire static ranges, and 566 acres of cantonment area. Approximately 37,520 acres of PTA is classified as unsuitable for training. The installation is used annually by approximately 18,000 soldiers from the 25<sup>th</sup> Infantry Division at Schofield Barracks in Wahiawa and Marines from the 3<sup>rd</sup> Marine Regiment at Kaneohe Bay.

**Lead Organization:**

Installation Management Agency, Pacific Region

**Lead Executing Agency:** Pohakuloa Training Area

**Regulatory Participation:**

**State:** Hawaii Department of Health: Requested SI

**National Priorities List (NPL) Status:** There are no NPL sites at PTA.

**Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status:** No RAB/TRC/TAPP has been established at this time.

**Installation Program Summaries**

**MMRP**

Primary Contaminants of Concern: OE, Lead, Arsenic

Affected Media of Concern: Soil

Estimated Date for RIP/RC: September 2017 (with indefinite LUCs)

Funding to date (up to FY05): \$ 478,125

Current year funding (FY06): \$ 0

Cost-to-Complete (2007+): \$ 18,765,000

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## Cleanup Program Summary

### ***Installation Historic Activity***

A site inspection report was submitted for the Humuula Sheep Station (PTA-001-R-01) and Kulani, or boy's home (PTA-0020R-01) to the State of Hawaii Department of Health in 2005.

Results of the site inspection activities at the Humuula Sheep Station (SI activities) included a site inspection from March 22 through March 25, 2005. This effort included both a visual survey and the collection of soil samples. The visual survey included 132 line miles of visual transects. Numerous blank small arms cartridges, both complete and expended, were observed. One deteriorating ground burst simulator was also identified.

Based on the results of this visual survey, it was recommended that the western portion of the site, west of John Burns Way (MRS PTA-001-R-01) be further investigated. A total of three soil samples were collected from Humuula and were analyzed for explosives and metals. No explosive compounds were detected in any of the samples. Iron was the only metal found to be above PRGs, which is common for Hawaii shallow soils.

A site inspection was conducted at the Kulani Boy's Home from March 28 through March 30, 2005. The field activities included a visual survey and the collection of soil samples. A visual survey entailed approximately 12.1 miles of random transects at Kulani. Numerous blank small arms cartridges, an M117 simulator, M118 smoke grenades, a riot grenade, and a fuse from a grenade were found that were both complete and expended. Based on the results of the visual survey, it was recommended that select munitions debris, and soil associated with a burn pile be removed.

A total of 4 soil samples were collected from 4 different areas. Trace amounts of the explosive tetryl and nitroglycerine were detected in one of the four samples. All concentrations were below PRGs and EALs (Hawaii state action levels).

***Current Activity:*** Review of the above listed report is pending with the State of Hawaii Department of Health. A SI for the western half of the Humuula site is planned and remediation of the burn pit at the Boy's Home.

# POHAKULOA TRAINING AREA

## Military Munitions Response Program

**Total AEDB-R MMRP Sites/AEDB-R sites with Response Complete:** 3/1

**AEDB-R Site Types**

3 Multi use Ranges

**Most Widespread Contaminants of Concern:** Arsenic, Lead, OE

**Media of Concern:** Soil

**Completed REM/IRA/RA:** 2017

**Total MMRP Funding**

Prior years (up to FY05):	\$ 478,125
Current Year (FY06):	\$ 0
Future Requirements (FY07+):	<u>\$18,765,000</u>
Total:	\$19,243,125



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# MMRP Contamination Assessment

## ***MMRP Contamination Assessment Overview***

Three MMRP sites have been identified at Pohakuloa Training Area. One has been made Response Complete.

## ***MMRP Cleanup Exit Strategy***

The continuation of the Humuula SI is scheduled for FY08. Remediation of the burn pit area at the Boy's Home is scheduled in the out years.

### 2002

- Final CTT Inventory Report, TechLaw, October

# POHAKULOA TRAINING AREA

Military Munitions  
Response Program  
Site Descriptions

# PTA-001-R-01 HUMUULA (SHEEP STATION)-WEST

## SITE DESCRIPTION

This former multi-use range is owned by the Department of Hawaiian Home Lands and is leased to Parker Ranch. In turn, Parker Ranch has intermittently leased this property to the US Army for use as a training area. There is a discrepancy as to the size of the site. According to the PTA Master Plan from 1996, the site consists of 20,377 acres, however, when the site was plotted in GIS using the map from the same report, the acreage was 29,694 acres. The site consists of open grass covered range with rolling hilly terrain and sporadic groupings of trees. Humuula is located directly east of Pohakuloa Training Area.

Humuula was large enough to accommodate battalion maneuvers. The area was formerly utilized for unit bivouac, tactical maneuvers, and air assault operations. Interviewees had no recollection of the use of this site for air assault. Blanks and pyrotechnics were used during training. The Army has not been allowed to use Humuula in the past several years. The Range Control Officer, and the Maintenance Supervisor, estimated that the range was used some time between 1980 and 1991. There have been no known UXO responses at this range. The site currently consists of ranchland.

Groundwater is located a minimum of 3000 feet below ground surface, and may be located as far as 6000 feet below groundwater surface. Therefore, it can be assumed that groundwater contamination may not be of immediate concern.

## CLEANUP STRATEGY

Groundwater is located a minimum of 3000 feet below ground surface, and may be located as far as 6000 feet below groundwater surface. Therefore, it can be assumed that groundwater contamination may not be of immediate concern but may be addressed during the RI if deemed necessary.

## STATUS

**REGULATORY DRIVER:** CERCLA

**RAC SCORE:** 5 - Negligible Risk

**CONTAMINANTS OF CONCERN:**  
Potential for Lead, Arsenic, OE

**MEDIA OF CONCERN:** Soil

<b>PHASES</b>	<b>Start</b>	<b>End</b>
PA.....	200204 .....	200305
SI.....	200405 .....	200507
RI/FS .....	200810 .....	200909
RD .....	201410 .....	201509
RA(C) .....	201510 .....	201709
LTM .....	201710 .....	204709

**RC DATE:** 201709

# PTA-002-R-01 KULANI BOYS' HOME

## SITE DESCRIPTION

This formerly leased property called Kulani, also known as the Boys' Home, is located southeast of Pohakuloa Training Area. This range consists of 2,293 acres of terrain varying from sparse to thick highland rainforest. According to two interviewees, Kulani was formerly used as a combat city, where urban assault training took place. Maneuvers most likely involved blank ammunition and pyrotechnics. The two interviewees stated that live ammunition was fired on the site in a closed prison called the Boys' Home. However, it was noted that the building was equipped with bullet traps. The range was most likely used between 1970 and 1993. The two interviewees estimated that the area had only been used two to three times in the past 18 years.

In addition, the site was formerly used by Delta Force in the early 1990s (probably 1993).

According to a PTA Master Plan document dated 1996, the site was previously available for unit bivouac, tactical maneuvers, and air assault operations. However, no additional evidence was found to indicate that air assault operations actually occurred on site. Interviewees had no recollection of air assaults taking place at this facility, but stated that if they had it would have involved soldiers rappelling from helicopters. There have been no known response actions at this range. The Site is currently a part of the Kulani Forest Reserve.

Groundwater is located a minimum of 3000 feet below ground surface, and may be located as far as 6000 feet below groundwater surface. Therefore, it can be assumed that groundwater contamination may not be of immediate concern.

## CLEANUP STRATEGY

Groundwater is located a minimum of 3000 feet below ground surface, and may be located as far as 6000 feet below groundwater surface. Therefore, it can be assumed that groundwater contamination may not be of immediate concern but may be addressed during the RI if deemed necessary.

## STATUS

**REGULATORY DRIVER:** CERCLA

**RAC SCORE:** 4 - Low

**CONTAMINANTS OF CONCERN:**  
Lead, Arsenic, OE

**MEDIA OF CONCERN:** Soil

<b>PHASES</b>	<b>Start</b>	<b>End</b>
PA .....	200204 .....	200305
SI .....	200405 .....	200507
RI/FS .....	200810 .....	200909
RD .....	201410 .....	201509
RA(C) .....	201510 .....	201709
LTM .....	201710 .....	204709

**RC DATE:** 201709

## IRP No Further Action Sites Summary

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
PTA-001-R-02	Hummula Sheep Station - East	Study Complete – No Cleanup Required	200601

***Initiation of MMRP:*** 2002

***Past Phase Completion Milestones***

PA – 200305

***Projected ROD/DD Approval Dates:*** Unknown

***Projected Construction Completion:*** 2017

***Schedule for Five Year Reviews:*** Unknown

***Estimated Completion Date of MMRP including LTM:*** 2017 with Indefinite LUCs

***Prior Years Funds*****Total Funding up to FY04: \$408,532****FY05****Site Information**

POTA-001-R-01 and POTA-002-R-01

**Expenditures****FY Total****\$69,593****Total Prior Year Funds: \$478,125*****Current Year (FY06) Requirements*****Site Information****Requirements****FY Total****\$0****Total Future Requirements: \$18,765K****Total MMR Program Cost (from inception to completion of the MMRP): \$19,243K**



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## Community Involvement

There is currently no RAB at this installation. However, interest will be solicited once the SI is completed.